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1 UNITED STATES PATENT AND TRADEMARK OFFICE
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4 BEFORE THE BOARD OF PATENT APPEALS
5 AND INTERFERENCES
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8 *Ex parte* BJORN MARKUS JAKOBSSON
9 and
10 JOY COLETTE MUELLER
11

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13 Appeal 2009-0395
14 Application 09/538,663
15 Technology Center 3600
16

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18 Decided:¹ April 30, 2009
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21 Before ANTON W. FETTING, JOSEPH A. FISCHETTI, and BIBHU R.
22 MOHANTY, *Administrative Patent Judges*.

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24 FETTING, *Administrative Patent Judge*.
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26
27 DECISION ON APPEAL
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¹ The two month time period for filing an appeal or commencing a civil action, as recited in 37 C.F.R. § 1.304, begins to run from the decided date shown on this page of the decision. The time period does not run from the Mail Date (paper delivery) or Notification Date (electronic delivery).

STATEMENT OF THE CASE

Bjorn Markus Jakobsson and Joy Colette Mueller (Appellants) seek review under 35 U.S.C. § 134 of a final rejection of claims 1-6, 8-13, and 15-20, the only claims pending in the application on appeal.

We have jurisdiction over the appeal pursuant to 35 U.S.C. § 6(b) (2002).

We REVERSE and ENTER A NEW GROUND OF REJECTION PURSUANT TO 37 C.F.R § 41.50(b).

The Appellants invented a method for controlling incoming or received email and protecting against spam email (Specification Page 2, lines 3-5).

An understanding of the invention can be derived from a reading of exemplary claims 1-4, which are reproduced below [bracketed matter and some paragraphing added].

1. A method for preventing receipt by receivers of unwanted electronic mail messages (email) sent by senders in a communication system, comprising the steps of:

[1] determining whether email to a particular receiver comprises valid message authentication code (MAC) information;

[2] filtering out at a gateway of the communication system email directed to the particular receiver that does not comprise valid MAC information; and

[3] providing the particular receiver with email directed to the particular receiver that comprises valid MAC information.

2. The method of claim 18, wherein the step of registering the particular sender comprises the steps of:

[1] establishing by the particular sender a cookie which indicates to the particular receiver whether the particular sender has satisfied the requirement to allow the particular sender to become a registered sender to the particular receiver;

[2] establishing an address related to an address associated with the particular receiver which will inform the particular sender that the particular receiver desires that the particular sender be able to send email to the particular receiver; and

[3] establishing by the particular receiver a key which is forwarded to the particular sender by the particular receiver to inform the particular sender that the particular sender is authorized to send email to the particular receiver and is now a registered sender and for use by the particular sender whenever the particular sender wishes to send email to the particular receiver.

3. The method recited in claim 2, wherein said step of establishing the address comprises generating a pseudorandom function with a keyed hash function using an input number comprising a unique serial number for use in generating an identifier for email between the particular sender to the particular receiver.

4. The method recited in claim 2, wherein said step of establishing an address comprises sending email from the particular receiver to the particular sender using public key encryption.

The Appellants filed an Appeal Brief in support of the appeal on November 16, 2008. An Examiner's Answer to the Appeal Brief was mailed on February 21, 2008. A Reply Brief was filed on April 21, 2008.

PRIOR ART

The Examiner relies upon the following prior art:

Greenstein	US 6,266,692 B1	Jul. 24, 2001
Cockrill	US 6,473,740 B2	Oct. 29, 2002
Kirsch	US 6,546,416 B1	Apr. 8, 2003

REJECTIONS

Claims 1, 10, and 17-20 stand rejected under 35 U.S.C. § 102(e) as anticipated by Greenstein.

Claims 2, 3, and 11 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Greenstein and Official Notice.

Claims 4-6, 8, 9, 12, 13, 15, and 16 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Greenstein, Official Notice, and Kirsch.

ISSUES

The issues pertinent to this appeal are

- Whether the Appellants have sustained their burden of showing that the Examiner erred in rejecting claims 1, 10, and 17-20 under 35 U.S.C. § 102(e) as anticipated by Greenstein.
 - This issue turns on whether Greenstein describes a MAC that is a keyed one-way function of an input as defined by the claimed invention.
- Whether the Appellants have sustained their burden of showing that the Examiner erred in rejecting claims 2, 3, and 11 under 35 U.S.C. § 103(a) as unpatentable over Greenstein and Official Notice.
 - This issue turns on whether Greenstein describes generating a pseudorandom function with a keyed hash function as required by claims 3 and 11.

- Whether the Appellants have sustained their burden of showing that the Examiner erred in rejecting claims 4-6, 8, 9, 12, 13, 15, and 16 under 35 U.S.C. § 103(a) as unpatentable over Greenstein, Official Notice, and Kirsch.
 - This issue turns on whether Kirsch describes sending a user an encrypted key that has been encrypted using public key encryption as per claims 5, 12, and 13.

FACTS PERTINENT TO THE ISSUES

The following enumerated Findings of Fact (FF) are believed to be supported by a preponderance of the evidence.

Facts Related to Claim Construction

01. The Specification contains a lexicographic definition of a “message authentication code (MAC).” A MAC is defined as a keyed one-way function of an input wherein a secret key is known by both the generator and the verifier of the MAC (Specification Page 9, lines 2-4).

Facts Related to Appellants’ Disclosure

02. The Specification admits that MACs are known to those skilled in the art and have been used in the past to authenticate emails. The Specification opines that they have not been used to avoid spam or categorize incoming email, but provides no evidence to support this (Specification Page 9, lines 5-7).

Greenstein

03. Greenstein is directed to a system and method for filtering incoming emails (column 1, lines 6-8). Greenstein is concerned

1 with the accurate filtering of unwanted emails without
2 compromising system resources (column 2, lines 9-12).

3 04. The system includes an email blocking process that requires all
4 senders to be pre-approved and in possession of a passcode in
5 order to send messages to users (column 2, lines 15-20). Senders
6 are enabled to request a valid passcode from a user prior to
7 sending a message to that user (column 2, lines 59-64).

8 05. The passcode maybe a phrase chosen by the user, an ASCII
9 character stream, or a randomly generated binary key (column 2,
10 lines 29-32).

11 06. A common passcode can be assigned to all senders.
12 Alternatively, individual passcodes may be given to each sender
13 and kept on a virtual key-ring. The passcodes can be changed at
14 anytime, thereby preventing receiving emails from any sender at
15 anytime (column 2, lines 43-46).

16 07. The passcode is inserted into a predefined field in the header of
17 an email message (column 2, lines 32-34).

18 08. The system includes an email server to manage all of the
19 incoming messages for a user. The email server checks the
20 passcode of each received message against the passcode of the
21 user. If the passcodes match, the email server approves the
22 message and sends the email to the user's mail inbox (column 3,
23 lines 38-51).

24 09. If the sender provides an incorrect passcode, the email server
25 deletes the email (column 3, lines 61-63).

Cockrill

10. Cockrill is directed to a method of facilitating transactions between users and multiple merchants (column 1, lines 6-10).
11. The method includes reading a customer cookie, which is stored on the customer's computer (column 10, lines 66-67).
12. A cookie is defined as a unique identifier of the customer, such as the customer's email address (column 11, lines 1-5). This identifier can be used to authenticate the user (column 11, lines 5-10).

Kirsch

13. Kirsch is directed to a system and method for detecting and blocking unsolicited commercial email (column 1, lines 9-12). Kirsch is concerned, with respect to detecting and blocking unsolicited email, a balance between the speeds provided by automation and the accuracy provided by manual inspection of email addresses (column 3, lines 25-27).
14. Kirsch generates a challenge request that requires an unknown sender to perform a task, such as entering a code or answering a question, in order to validate the sender (column 6, lines 29-41). The challenge request includes a text statement and a digital signature (column 6, lines 23-25).
15. The digital signature is formed utilizing conventional encoding and encryption techniques, including public key encryption (column 6, lines 56-58). The signature value is generated based on a check-sum generated utilizing the challenge request statement as the source text (column 6, lines 59-61).

1 16. The sender is required to respond to the challenge request. The
2 sender's response is analyzed to determine whether the response is
3 valid. If the response is invalid, the message and the response are
4 discarded and the email address is added to a rejected email
5 addresses list. Conversely, if the response is valid, the user
6 receives the message and the previously unknown email address is
7 added to the accepted email addresses list (column 7, lines 21-35).

8 *Facts Related To The Level Of Skill In The Art*

9 17. Neither the Examiner nor the Appellants has addressed the level
10 of ordinary skill in the pertinent art of email management. We
11 will therefore consider the cited prior art as representative of the
12 level of ordinary skill in the art. *See Okajima v. Bourdeau*, 261
13 F.3d 1350, 1355 (Fed. Cir. 2001) ("[T]he absence of specific
14 findings on the level of skill in the art does not give rise to
15 reversible error 'where the prior art itself reflects an appropriate
16 level and a need for testimony is not shown'" (quoting *Litton*
17 *Indus. Prods., Inc. v. Solid State Sys. Corp.*, 755 F.2d 158, 163
18 (Fed. Cir. 1985)).

19 *Facts Related To Secondary Considerations*

20 18. There is no evidence on record of secondary considerations of
21 non-obviousness for our consideration.
22

PRINCIPLES OF LAW

Claim Construction

During examination of a patent application, pending claims are given their broadest reasonable construction consistent with the specification. *In re Prater*, 415 F.2d 1393, 1404-05 (CCPA 1969); *In re Am. Acad. of Sci. Tech Ctr.*, 367 F.3d 1359, 1364 (Fed. Cir. 2004).

Limitations appearing in the specification but not recited in the claim are not read into the claim. *E-Pass Techs., Inc. v. 3Com Corp.*, 343 F.3d 1364, 1369 (Fed. Cir. 2003) (claims must be interpreted “in view of the specification” without importing limitations from the specification into the claims unnecessarily).

Although a patent applicant is entitled to be his or her own lexicographer of patent claim terms, in *ex parte* prosecution it must be within limits. *In re Corr*, 347 F.2d 578, 580 (CCPA 1965). The applicant must do so by placing such definitions in the specification with sufficient clarity to provide a person of ordinary skill in the art with clear and precise notice of the meaning that is to be construed. *See also In re Paulsen*, 30 F.3d 1475, 1480 (Fed. Cir. 1994) (although an inventor is free to define the specific terms used to describe the invention, this must be done with reasonable clarity, deliberateness, and precision; where an inventor chooses to give terms uncommon meanings, the inventor must set out any uncommon definition in some manner within the patent disclosure so as to give one of ordinary skill in the art notice of the change).

1 *Anticipation*

2 "A claim is anticipated only if each and every element as set forth in
3 the claim is found, either expressly or inherently described, in a single prior
4 art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d
5 628, 631 (Fed. Cir. 1987). "When a claim covers several structures or
6 compositions, either generically or as alternatives, the claim is deemed
7 anticipated if any of the structures or compositions within the scope of the
8 claim is known in the prior art." *Brown v. 3M*, 265 F.3d 1349, 1351 (Fed.
9 Cir. 2001). "The identical invention must be shown in as complete detail as
10 is contained in the ... claim." *Richardson v. Suzuki Motor Co.*, 868 F.2d
11 1226, 1236 (Fed. Cir. 1989). The elements must be arranged as required by
12 the claim, but this is not an *ipsissimis verbis* test, i.e., identity of terminology
13 is not required. *In re Bond*, 910 F.2d 831, 832 (Fed. Cir. 1990).

14 *Obviousness*

15 A claimed invention is unpatentable if the differences between it and
16 the prior art are "such that the subject matter as a whole would have been
17 obvious at the time the invention was made to a person having ordinary skill
18 in the art." 35 U.S.C. § 103(a) (2000); *KSR Int'l Co. v. Teleflex Inc.*, 550
19 U.S. 398, 399 (2007); *Graham v. John Deere Co.*, 383 U.S. 1, 13-14 (1966).

20 In *Graham*, the Court held that that the obviousness analysis is
21 bottomed on several basic factual inquiries: "[(1)] the scope and content of
22 the prior art are to be determined; [(2)] differences between the prior art and
23 the claims at issue are to be ascertained; and [(3)] the level of ordinary skill
24 in the pertinent art resolved." 383 U.S. at 17-18. *See also KSR*, 550 U.S. at
25 406-07. "The combination of familiar elements according to known

1 methods is likely to be obvious when it does no more than yield predictable
2 results.” *Id.* at 416.

3 “When a work is available in one field of endeavor, design incentives
4 and other market forces can prompt variations of it, either in the same field
5 or a different one. If a person of ordinary skill can implement a predictable
6 variation, § 103 likely bars its patentability.” *Id.* at 417.

7 “For the same reason, if a technique has been used to improve one
8 device, and a person of ordinary skill in the art would recognize that it would
9 improve similar devices in the same way, using the technique is obvious
10 unless its actual application is beyond his or her skill.” *Id.*

11 “Under the correct analysis, any need or problem known in the field
12 of endeavor at the time of invention and addressed by the patent can provide
13 a reason for combining the elements in the manner claimed.” *Id.* at 420.

14 ANALYSIS

15 *Claims 1, 10, and 17-20 rejected under 35 U.S.C. § 102(e) as*
16 *anticipated by Greenstein*

17 The Examiner found that Greenstein anticipates claims 1, 10, and 17
18 (Answer Pages 4-5).

19 The Appellants contend that (1) Greenstein describes a single
20 passcode that is used by all senders, which is different from the claimed
21 message authentication code (MAC) feature (Br. Page 5, second paragraph
22 and Reply Brief Page 2, third paragraph), (2) Greenstein fails to describe the
23 feature where a sender becomes a registered sender by satisfying a
24 requirement as per claims 17 and 19 (Br. Page 7, first paragraph and Reply
25 Br. Page 4, first paragraph), and (3) Greenstein fails to describe and teaches
26 away from the feature of registering the particular sender when the particular

sender is determined not to be a registered sender of email to the particular receiver as per claims 18 and 20 (Br. Page 7, fourth paragraph and Reply Br. Page 5, fourth paragraph).

The Appellants first contend that (1) Greenstein describes a single passcode that is used by all senders, which is different from the claimed MAC feature (Br. Page 5, second paragraph and Reply Brief Page 2, third paragraph). The Appellants specifically argue that the claimed invention has disclosed a special definition for a MAC and Greenstein's description of a passcode is not the same as a MAC as per this special definition (Br. Page 5, first paragraph).

We agree with the Appellants. The claimed invention defines a MAC as a keyed one-way function of an input wherein a secret key is known by both the generator and the verifier of the MAC (FF 01). Greenstein describes the use of a passcode, which is a secret phrase or message in the header of an email message that is only known to the sender and verified by the receiver of the message (FF 05 – FF 07). The passcode can be individualized for each sender and can be changed at anytime (FF 06). As such, the passcode is specific to each message since it can be changed at anytime. However, Greenstein fails to describe the use of a keyed one-way function to generate the passcode. Since there is no evidence that Greenstein generates the passcode using a one-way function, Greenstein does not anticipate independent claims 1 and 10.

The Appellants further contend (2) Greenstein fails to describe the feature where a sender becomes a registered sender by satisfying a requirement of claims 17 and 19 (Br. Page 7, first paragraph and Reply Br. Page 4, first paragraph). We disagree with the Appellants. Greenstein

requires senders to be pre-approved or request a passcode from a user (FF 04). Satisfying a condition in order to become pre-approved is functionally the same as satisfying a requirement to become a registered sender. Requesting a passcode from a user is also satisfying a requirement to become a registered sender since the requesting of a passcode is an act that must be completed before being enabled to send a message to the user. As such, Greenstein does describe this feature.

The Appellants additionally contend (3) Greenstein fails to describe and teaches away from the feature of registering the particular sender when the particular sender is determined not to be a registered sender of email to the particular receiver of claims 18 and 20 (Br. Page 7, fourth paragraph and Reply Br. Page 5, fourth paragraph).

We agree with the Appellants. The Examiner found that column 3, lines 52-67 describes this feature (Answer Page 10). This passage merely describes holding a single email until a user accepts or rejects that single email. This does not describe registering an unregistered user. As such, Greenstein does not anticipate claims 18 and 20.

The Appellants have sustained their burden of showing that the Examiner erred in rejecting claims 1, 10, and 17-20 under 35 U.S.C. § 102(e) as anticipated by Greenstein for the above reasons.

NEW GROUND OF REJECTION

The following new grounds of rejection are entered pursuant to 37 C.F.R. § 41.50(b). Claims 1, 10, 17, and 19 are rejected under 35 U.S.C. § 103(a) as unpatentable over Greenstein and Admitted Prior Art. Claims 18

1 and 20 are rejected under 35 U.S.C. § 103(a) as unpatentable over
2 Greenstein, Admitted Prior Art, and Kirsch.

3 As discussed above, Greenstein fails to describe the features of a
4 MAC, where a MAC is a keyed one way function of an input. The
5 Specification admits that the use of a MAC, as defined by the claimed
6 invention, was known in the art for authenticating email messages (FF 01
7 and FF 02). The Specification further opines that MACs have not been used
8 to avoid SPAM or categorize emails, but provides no evidence of this (FF
9 02). Thus we consider, but accord this opinion no weight in assessing the
10 patentability of claim 1.

11 Greenstein is concerned with accurate filtering of unwanted emails
12 (FF 03). Greenstein accomplishes this by authenticating email messages by
13 performing the verification of a phrase or text, such as a passcode, which in
14 turn increases the ability to block SPAM (FF 04). A person of ordinary skill
15 in the art would have recognized that the use of a MAC, already known for
16 use in authenticating email messages, would have been simply a more secure
17 implementation of Greenstein in validating incoming emails in order to
18 avoid the receipt of SPAM and would increase the accuracy of the filtering
19 of emails. It would have been obvious, at the time of the invention, to
20 combine Greenstein and the Admitted Prior Art in order to increase the
21 accuracy of the blocking of emails and avoiding receipt of SPAM.

22 Additionally, although Greenstein and the Admitted Prior Art fail to
23 describe the feature of registering the particular sender when the particular
24 sender is determined not to be a registered sender of email to the particular
25 receiver as per claims 18 and 20, Kirsch describes this feature.

1 Kirsch describes a SPAM control system (FF 13). This system holds
2 emails from unknown email addresses and submits a challenge request to the
3 senders of these emails (FF 14). The challenge request requires a response
4 from the senders and the response from the senders is validated (FF 16).
5 When an invalid response is received, the system discards the email and
6 adds the email address to the rejected email addresses list (FF 16). When a
7 valid response is received, the user receives the message and the previously
8 unknown email address is added to the accepted email addresses list (FF 16).

9 This describes the claim limitation at issue because the act of moving
10 an email address to the accepted email addresses list is an act of registering
11 the sender of that email with the email controlling system.

12 Furthermore, the moving of the email address to the accepted list is
13 done in response to the sender satisfying a requirement; the requirement
14 being to submit a valid response to the challenge request. A person of
15 ordinary skill in the art would have recognized that this feature would reduce
16 the amount of processing time and storage space used in Greenstein, since
17 Greenstein is also holding on to unknown emails until a user accepts or
18 rejects the emails. It would have been obvious to combine Greenstein and
19 Kirsch in order to minimize the amount of unwanted or unsolicited email
20 received by a user.

21 None of the remaining limitations are under contention and we
22 accordingly adopt the Examiner's findings as to how the prior art describes
23 those limitations.

24

FURTHER ANALYSIS OF EXAMINER'S REJECTIONS AND NEW
GROUNDS OF REJECTION

*Claims 2, 3, and 11 rejected under 35 U.S.C. § 103(a) as unpatentable
over Greenstein and Official Notice*

Claims 2, 3, and 11 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Greenstein and Official Notice. The Examiner's official notice does not overcome the deficiencies in the rejection of the parent claims 1 and 10. Thus, we will not sustain the Examiner's rejection.

We enter a new ground of rejection of claim 2 under 35 U.S.C. § 103(a) as unpatentable over Greenstein, Admitted Prior Art, Kirsch, and Official Notice.

We first analyze the Examiner's findings under contention as to claims 2, 3, and 11. The Examiner found that Greenstein describes all of the limitations of claims 2, 3, and 11 except limitation [1] of claim 2 (Answer Page 6). The Examiner found that this feature is old and well-known in the art at the time of the invention by taking Official Notice of this feature and found that one of ordinary skill in the art would have been known to modify Greenstein to include this feature in order to increase the speed because cookies enable faster authentication (Answer Page 6).

The Appellants contend:

(1) The Examiner has improperly taken Official Notice of the fact that cookies were old and well-known at the time of invention as per claim 2 (Br. Page 8, fourth paragraph).

(2) The Examiner's taking of Official Notice of the use of cookies in combination with Greenstein fails to describe a cookie that indicates to the particular receiver whether the particular sender has

1 satisfied the requirement to allow the particular sender to become a
2 registered sender to the particular receiver as per limitation [1] of
3 claim 2 (Br. Page 9, first paragraph). Specifically, the Examiner's
4 characterization of Greenstein's establishing of addresses is argued as
5 incorrect because Greenstein separates the address fields from the
6 passcodes field in messages (Br. Page 9, third paragraph).

7 (3) There is no motivation to modify Greenstein to include the
8 use cookies and the Examiner used impermissible hindsight (Br. Page
9 10, second and third paragraphs).

10 (4) Greenstein fails to describe establishing an address by
11 generating a pseudorandom function of claims 3 and 11 (Br. Page 11,
12 third paragraph and Reply Br. Page 7, first paragraph).

13 The Appellants first contend (1) the Examiner has improperly taken
14 Official Notice of the facts that cookies were old and well-known at the time
15 of invention as per claim 2 (Br. Page 8, fourth paragraph). The Appellants
16 contend that the Examiner has failed to provide documentary evidence in
17 support of the Official Notice.

18 We disagree with the Appellants. The Examiner provided Cockrill in
19 support of taking Official Notice. Cockrill describes storing unique
20 identification information of a user in a cookie (FF 12). The Appellants fail
21 to respond to the Examiner finding that Cockrill supports the previously
22 asserted Official Notice. As such, the Appellants' argument is not found to
23 be persuasive.

24 The Appellants further contend (2) the Examiner's taking of Official
25 Notice of the use of cookies in combination with Greenstein fails to describe
26 a cookie that indicates to the particular receiver whether the particular sender

1 has satisfied the requirement to allow the particular sender to become a
2 registered sender to the particular receiver as per limitation [1] of claim 2
3 (Br. Page 9, first paragraph).

4 We disagree with the Appellants. As discussed above, Cockrill was
5 submitted in support of the Official Notice. Cockrill describes the use of
6 cookies to store unique identification information of a user, such as an email
7 address (FF 12). Kirsch specifically identifies a valid or invalid sender
8 based on the sender's email address (FF 16). A sender is either on an
9 accepted list or rejected list (FF 16). If the sender is on the accepted list, the
10 sender has also satisfied a requirement by validly responding to a challenge
11 request (FF 14). As such, the combination of the cookie, the email address
12 made available by the cookie, and the determination of whether a sender is
13 registered by satisfying a requirement, as described by Kirsch, describes
14 limitation [1] of claim 2 as a whole. As such, the Examiner's taking of
15 Official Notice of the use of cookies in combination with the remaining art is
16 sufficient to describe limitation [1] in combination with the cited prior art.

17 The Appellants further contend (3) there is no motivation to modify
18 Greenstein to include a feature to use cookies and the Examiner used
19 impermissible hindsight (Br. Page 10, second and third paragraphs). We
20 disagree with the Appellants. The Examiner found that one of ordinary skill
21 in the art would have been motivated to modify Greenstein to include the use
22 of cookies in order to lead to the faster authentication of emails (Answer
23 Page 6).

24 We agree with the Examiner. Greenstein and Kirsch are both
25 concerned with reducing system resources and expediting the processing of
26 information (FF 03 and FF 13). The use of cookies accomplishes this task

1 by providing needed information quickly. A person of ordinary skill in the
2 art, at the time of the invention, would have recognized this advantage
3 provided by cookies and would have found it predictable to modify
4 Greenstein and Kirsch to include this advantage. As such, Greenstein and
5 Kirsch are concerned with the same problem and one of ordinary skill in the
6 art would have been led to combine their teachings with the use of cookies.

7 The Appellants also contend (4) Greenstein fails to describe the
8 establishing of an address by generating a pseudorandom function with a
9 keyed hash function of claims 3 and 11 (Br. Page 11, third paragraph and
10 Reply Br. Page 7, first paragraph).

11 We agree with the Appellants. The Examiner found that Greenstein
12 describes a randomly generated binary key and a randomly generated binary
13 key describes the feature of claims 3 and 11 (Answer Pages 6 and 12). A
14 randomly generated binary key is merely a text and is not the same as
15 establishing of an address by generating a pseudorandom function with a
16 keyed hash function. As such, we find no evidence that any of the cited
17 references describe claims 3 and 11.

18 We adopt the Examiner's uncontested findings in our rejection.

Claims 4-6, 8, 9, 12, 13, 15, and 16 rejected under 35 U.S.C. § 103(a) as unpatentable over Greenstein, Official Notice, and Kirsch

Claims 4-6, 8, 9, 12, 13, 15, and 16 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Greenstein and Official Notice, and Kirsch. The Examiner's official notice does not overcome the deficiencies in the rejection of the parent claims 1 and 10. Thus, we will not sustain the Examiner's rejection.

We enter a new ground of rejection of claims 4-6, 8, 9, 12, 13, 15, and 16 under 35 U.S.C. § 103(a) as unpatentable over Greenstein, Admitted Prior Art, Kirsch, and Official Notice.

We first analyze the Examiner's findings under contention as to claims 4-6, 8, 9, 12, 13, 15, and 16. The Examiner found that Greenstein and the Official Notice taken describe all of the limitations of these claims except for the limitations of "establishing an address comprises sending email from the particular receiver to the particular sender using public key encryption" of claims 4 and 12 and determining whether the message has valid MAC information of claims 8-9 and 15-16 (Answer Page 7). The Examiner found that Kirsch describes these limitations and one of ordinary skill in the art would have been motivated to combine Kirsch to Greenstein and the Official Notice in order to authenticate emails effectively while filtering emails (Answer Page 7).

The Appellants contend that (1) there is no motivation to combine Greenstein, the Official Notice, and Kirsch and the Examiner used impermissible hindsight (Br. Page 12, third and fifth paragraphs and Br. Page 15, last paragraph), (2) Greenstein, Kirsch, and the Official Notice fail to describe the registration of a sender comprises sending to a particular user

by a particular receiver an encrypted key, wherein the encrypted key is a member of a set of encrypted keys as per claims 5 and 13 (Br. Page 14, first paragraph), and (3) Greenstein, Kirsch, and the Official Notice fail to describe a registering module sets up an encrypted address for sending email from the particular receiver to the particular sender using public key encryption of claim 12 (Br. Page 15, second paragraph and Reply Br. Page 7, last paragraph).

The Appellants first contend (1) there is no motivation to combine Greenstein, the Official Notice, and Kirsch and the Examiner used impermissible hindsight (Br. Page 12, third and fifth paragraphs and Br. Page 15, last paragraph). We disagree with the Appellants. The Appellants asserted this same argument above in support of claims 2, 3, and 11. We found this argument to be unpersuasive *supra* and so find this argument to be unpersuasive here as well.

The Appellants further contend (2) Greenstein, Kirsch, and the Official Notice fail to describe the registration of a sender comprising sending to a particular user by a particular receiver an encrypted key, wherein the encrypted key is a member of a set of encrypted keys as per claims 5 and 13 (Br. Page 14, first paragraph).

We disagree with the Appellants. Kirsch describes sending a challenge request to a sender that includes a digital signature (FF 14). The digital signature is generated using conventional encoding and encryption techniques, including public key encryption (FF 15). The digital signature is based on a check-sum generated using the challenge request as the source text (FF 15). That is, each digital signature is unique since it is based on the

1 text of the challenge request and as such is one of many possible digital
2 signatures. As such, Kirsch describes this feature of claims 5 and 13.

3 The Appellants additionally contend (3) Greenstein, Kirsch, and the
4 Official Notice fail to describe a registering module that sets up an encrypted
5 address for sending email from the particular receiver to the particular
6 sender using public key encryption of claim 12 (Br. Page 15, second
7 paragraph and Reply Br. Page 7, last paragraph). We disagree with the
8 Appellants.

9 As discussed above, Kirsch describes sending a challenge request to a
10 sender and the challenge request includes a task to be performed and a
11 digital signature (FF 14). The digital signature is generated using
12 conventional encoding and encryption techniques, including public key
13 encryption (FF 15). The sender's response to the challenge request must
14 include the digital signature (FF 16). That is, the sender registration process
15 includes sending the sender a key that is encrypted using public key
16 encryption. As such, Kirsch does describe the additional feature recited in
17 claim 12.

18 We adopt the Examiner's uncontested findings in our rejection.
19

20 CONCLUSIONS OF LAW

21 The Appellants have sustained their burden of showing that the
22 Examiner erred in rejecting claims 1, 10, and 17-20 under 35 U.S.C. §
23 102(e) as anticipated by Greenstein.

24 The Appellants have sustained their burden of showing that the
25 Examiner erred in rejecting claims 2, 3, and 11 under 35 U.S.C. § 103(a) as
26 unpatentable over Greenstein and Official Notice.

The Appellants have sustained their burden of showing that the Examiner erred in rejecting claims 4-6, 8, 9, 12, 13, 15, and 16 under 35 U.S.C. § 103(a) as unpatentable over Greenstein, Official Notice, and Kirsch.

A new ground of rejection is entered 37 C.F.R. § 41.50(b). Claims 1, 10, 17, and 19 are rejected under 35 U.S.C. § 103(a) as unpatentable over Greenstein and Admitted Prior Art. Claims 18 and 20 are rejected under 35 U.S.C. § 103(a) as unpatentable over Greenstein, Admitted Prior Art, and Kirsch. Claims 2, 4-6, 8, 9, 12, 13, 15, and 16 are rejected under 35 U.S.C. § 103(a) as unpatentable over Greenstein, Admitted Prior Art, Kirsch, and Official Notice.

DECISION

To summarize, our decision is as follows:

- The rejection of claims 1, 10, and 17-20 under 35 U.S.C. § 102(e) as anticipated by Greenstein is not sustained.
- The rejection of claims 2, 3, and 11 under 35 U.S.C. § 103(a) as unpatentable over Greenstein and Official Notice is not sustained.
- The rejection of claims 4-6, 8, 9, 12, 13, 15, and 16 under 35 U.S.C. § 103(a) as unpatentable over Greenstein, Official Notice, and Kirsch is not sustained.
- New grounds of rejection are entered pursuant to 37 C.F.R. § 41.50(b).
 - Claims 1, 10, 17, and 19 are rejected under 35 U.S.C. § 103(a) as unpatentable over Greenstein and Admitted Prior Art.

- 1 o Claims 18 and 20 are rejected under 35 U.S.C. § 103(a) as
- 2 unpatentable over Greenstein, Admitted Prior Art, and Kirsch.
- 3 o Claims 2, 4-6, 8, 9, 12, 13, 15, and 16 are rejected under 35
- 4 U.S.C. § 103(a) as unpatentable over Greenstein, Admitted
- 5 Prior Art, Kirsch, and Official Notice.
- 6 • No new ground of rejection has been entered for claims 3 and 11. The
- 7 rejection of claims 3 and 11 is not sustained.

8 Our decision is not a final agency action.

9 In addition to affirming the Examiner's rejection(s) of one or more
10 claims, this decision contains new grounds of rejection pursuant to 37 C.F.R.
11 § 41.50(b). 37 C.F.R. § 41.50(b) provides “[a] new ground of rejection
12 pursuant to this paragraph shall not be considered final for judicial review.”

13 This Decision contains a new rejection within the meaning of 37
14 C.F.R. § 41.50(b) (2007).

15 37 C.F.R. § 41.50(b) also provides that Appellants, WITHIN TWO
16 MONTHS FROM THE DATE OF THE DECISION, must exercise one of
17 the following two options with respect to the new rejection:

- 18 (1) *Reopen prosecution.* Submit an appropriate amendment of
- 19 the claims so rejected or new evidence relating to the claims
- 20 so rejected, or both, and have the matter reconsidered by the
- 21 Examiner, in which event the proceeding will be remanded
- 22 to the Examiner. . . .
- 23 (2) *Request rehearing.* Request that the proceeding be reheard
- 24 under § 41.52 by the Board upon the same record. . . .

25 Should the Appellants elect to prosecute further before the examiner
26 pursuant to 37 C.F.R. § 41.50(b)(1), in order to preserve the right to seek
27 review under 35 U.S.C. §§ 141 or 145 with respect to the affirmed rejection,

1 the effective date of the affirmance is deferred until conclusion of the
2 prosecution before the Examiner unless, as a mere incident to the limited
3 prosecution, the affirmed rejection is overcome.

4 If the Appellants elect prosecution before the Examiner and this does
5 not result in allowance of the application, abandonment or a second appeal,
6 this case should be returned to the Board of Patent Appeals and Interferences
7 for final action on the affirmed rejection, including any timely request for
8 rehearing thereof.

9 No time period for taking any subsequent action in connection with
10 this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv) (2007).

11
12 AFFIRMED-IN-PART; 37 C.F.R. 41.50(b)
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19

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